

Amendments to the Claims

Claims 1-8. (Cancelled)

9. (New) A method for production of a locally limited diffusion layer on a metal component by alitiation, siliconization and/or chromation, comprising the steps of:

applying a paste containing Cr, Si and/or Al, and containing an activator, to an area of the metal component to be coated;

solidifying the paste to form a donor pack;

covering of a region, which is not to be coated and is adjacent to the donor pack, with a diffusion-blocking powder pack; and

heating to a temperature above 900°C in order to carry out the alitiation, siliconization and/or chromation.

10. (New) The method of Claim 9, wherein the metal component is covered before the step of applying the paste, at least in the area to be coated, with a porous separating layer containing Al_2O_3 .

11. (New) The method of Claim 9, wherein the diffusion-blocking powder pack contains a metal powder having a similar or a same composition as the metal component to be coated.

12. (New) The method of Claim 9, wherein the diffusion-blocking powder pack consists of Ni or of a Ni alloy.

13. (New) The method of Claim 9, wherein the diffusion-blocking powder pack contains an activator.

14. (New) The method of Claim 9, wherein the diffusion-blocking powder pack, the paste and/or the donor pack contains an activator in an amount of 0.2 to 5 wt.%.

15. (New) The method of Claim 9, wherein the activator is NH_4F , NH_4Cl and/or AlF_3 .

16. (New) The method of Claim 9, wherein the metal component is a component of a turbine rotor.